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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,689	07/21/2003	Shaoxing Lu	237687US0	4413
22850 7590 01/23/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER PENG, KUO LIANG	
			ART UNIT	PAPER NUMBER
			1712	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/23/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/622,689

Applicant(s)

LU ET AL.

Examiner

Kuo-Liang Peng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11/14/06 RCE.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3,4,10-12,18,19 and 22-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,4,10-12,18,19 and 22-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/14/06.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed November 14, 2006 has been entered. Claims 1-2, 5-9, 13-17 and 20-21 are deleted. Claims 3 and 22-23 are amended. Now, Claims 3-4, 10-12, 18-19 and 22-37 are pending.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 4, “oxyalkylene group is selected from the group consisting of polyoxyalkylene groups” causes confusion because obviously an **oxyalkylene** group is not a **polyoxyalkylene** group.

### ***Double Patenting***

4. Rejections of Claims 10-12, 18-19 and 22-34 under double patenting rejections are maintained because the rejections are adequately set forth in paragraph 3 of Paper No. 061006. Applicant's arguments have been fully considered but they are not persuasive because of the same reasons set forth in the rest of this Office action.

### ***Claim Rejections - 35 USC § 102***

5. Rejection of Claims 3, 10-12 and 18-19 under 35 USC 102(e) as being anticipated by Lu (US 2004/0001799), rejection of Claims 3, 10-12, 18-19 and 22-34 under 35 U.S.C. 102(e) as being anticipated by Lu548 (US 2003/0235548), rejection of Claims 3, 10-12, 18-19 and 22-37 under 35 U.S.C. 102(e) as being anticipated by Lu553 (US 2003/0235553), rejection of Claims 3, 10-12, 18-19 and 22-37 under 35 U.S.C. 102(e) as being anticipated by Hansenne (US 2004/0126336), rejection of Claims 3, 10-12, 18-19 and 22-37 under 35

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U.S.C. 102(e) as being anticipated by Yu552 (US 2003/0235552), rejection of Claims 3, 10-12, 18-19 and 22-37 are rejected under 35 U.S.C. 102(a),(e) as being anticipated by Tournilhac (US 2003/0072730), rejection of Claims 3, 10-12, 18-19 and 22-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Ferrari188 (US 2003/0170188), rejection of Claims 3, 10-12, 18-19 and 22-37 are rejected under 35 U.S.C. 102(a),(e) as being anticipated by Ferrari348 (US 2003/0068348), rejection of Claims 3, 10-12, 18-19 and 22-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Yu154 (US 2004/0115154), rejection of Claims 3, 10-12, 18-19 and 22-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Yu153 (US 2004/0115153), rejection of Claims 3, 10-12, 18-19 and 22-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Yu912 (US 2004/0120912) and rejection of Claims 3, 10-12, 18-19 and 22-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Lu030 (US 2003/0232030) are maintained because the rejections are adequately set forth in paragraph 5 of Paper No. 011006. Applicant's arguments have been fully considered but they are not persuasive. The focus argument related to the core patentability is discussed below.

For Applicants' argument (Remarks, page 7, last paragraph), the claimed invention (except Claim 4) does not specify the specific oxyalkylene groups.

For Applicants' argument (Remarks, page 8, 1<sup>st</sup> to 3<sup>rd</sup> paragraphs and page 9, 1<sup>st</sup> paragraph), since X in formula (I) can be C1 to C30 alkylenediyl group, upon interrupting with one or more oxygen atoms, the number of oxyalkylene groups should fall within the claimed range of w set forth in the present invention. Thus, the alkylenediyl group interrupted with one or more oxygen atoms contains oxyalkylene groups.

For Applicants' argument (Remarks, page 8, last paragraph), "no **need** would exist to modify the formula (I) polymers by adding oxyalkylene groups to them to obtain the claimed polymers" appears to be irrelevant because the nature of the instant rejections is **anticipation**.

6. Claims 3-4, 10, 22-30, and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Wittmann (US 4 822 852).

Wittmann discloses a composition comprising a copolyamide containing formula (I). The polyamides containing polydiorganosiloxane carbonamide units may be prepared by partly replacing the dicarboxylic acid(s)/derivative(s) and/or the diamine or the lactam or the aminocarboxylic acid in processes known per se for the production of polyamides, for example melt condensation or interfacial condensation of dicarboxylic acids or derivatives thereof and diamines or of

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aminocarboxylic acids and lactams, by corresponding amino- or carboxyl-terminated, so-called organofunctional polydiorganosiloxane compounds. (col. 2, lines 49-59) The polydiorganosiloxane units may be attached either to one another and/or to the polyamide-forming components (including the polyether diamines) through the carbonamide groups. The use of the organofunctional polydiorganosiloxane components is characterized in that, after the incorporation reaction, only a very small proportion can be extracted from the polyamide with a good solvent for the starting siloxane. (col. 5, lines 16-23) These polyoxyalkylene ether diamines may be prepared, for example, by amination of polyoxyalkylene etherdiols under pressure, by addition of acrylonitrile to polyetherdiols and subsequent reduction of the nitrile group, by alkali-catalyzed hydrolysis of NCO prepolymers of polyetherdiols and (cyclo)aliphatic diisocyanates or by other known methods. Examples of polyether diamines eminently suitable for use in accordance with the invention are the commercially available Jeffamines<sup>®</sup>. (col. 4, lines 57-66) The polyoxyalkylene ether diamine can be derived from oxyethylene, etc. preferably with a molecular weight of 400 to 3500. (col. 4, lines 39-56) Since the formula weight of oxyethylene is 44, Wittmann discloses a polyoxyethylene ether diamine that can have **about 9 to about 79 units of oxyethylene groups**. The content of the polydiorganosiloxane in the copolyamide can be 15% wt. The



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copolyamide can contain residue derived from polyether diamine (such as polyoxyethylene diamine, etc.) in an amount of 0.1 to 20% wt or 0.5 to 5% wt. (col. 4, lines 39-56). Thus, the copolyamide can have a dimethylsiloxane/oxyethylene ratio (corresponding to **z/w ratio** in the present invention) of **about 0.4 to about 100** or **about 2 to about 18** because the formula weights of a dimethylsiloxane unit and an oxyethylene are 74 and 44, respectively.

For Applicants' argument (Remarks, page 6, last paragraph to page 7, 3<sup>rd</sup> paragraph), obviously "p = 0.1" recited in Wittmann (col. 3, line 13) is a typographical error. It should read "p = 0, 1" as indicated col. 3, lines 36-43. Furthermore, Wittmann's polyoxyalkylene moieties are derived from oxyethylene, oxypropylene, etc. as described in col. 4, lines 39-56. The formula (I) containing -Si-O<sub>p</sub>-X- moiety is merely a part of the copolyamide.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The

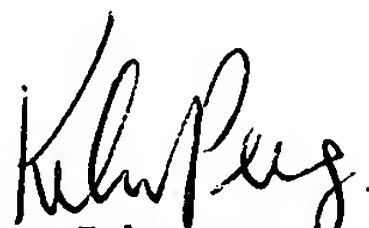


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fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp  
January 18, 2007

  
Kuo-Liang Peng  
Primary Examiner  
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